

DEVICE AND METHOD FOR CREATING
AEROSOLS FOR DRUG DELIVERY.

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ABSTRACT OF THE DISCLOSURE

A drug delivery device and method is disclosed which produces aerosolized particles of pharmaceutically active drug for delivery to a patient by inhalation. The device is comprised of a liquid feeding source such as a channel to which formulation is added at one end and expelled through an exit opening. The feeding channel is surrounded by a pressurized chamber
10 into which gas is fed and out of which gas is expelled from an opening. The opening from which the gas is expelled is positioned directly in front of the flow path of liquid expelled from the feeding channel. Various parameters are adjusted so that pressurized gas surrounds liquid flowing out of the feeding channel in a manner so as to maintain a stable capillary microjet of liquid until the liquid exits the pressure chamber opening and is aerosolized. The aerosolized
15 particles having a uniform diameter in the range of about 1 to 5 microns are inhaled into a patient's lungs and thereafter reach the patient's circulatory system.